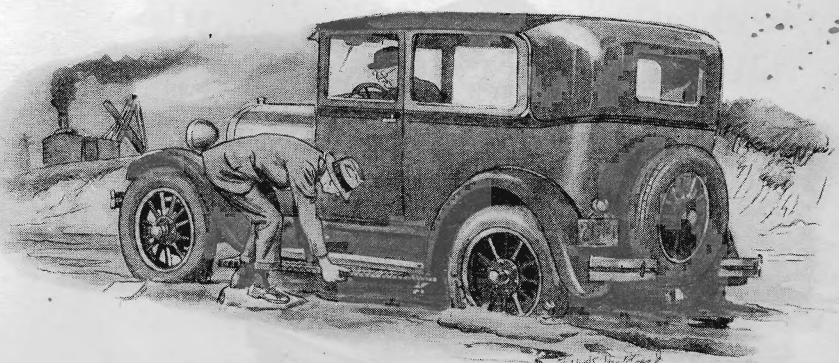
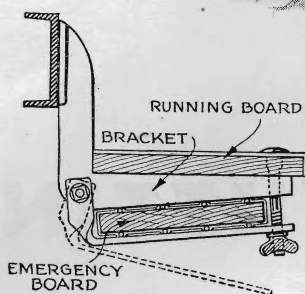


When You're Stuck in a Mudhole

Here's an Emergency Device That Will Get Your Car Out—Other Ingenious and Useful Ideas for Motorists



EVEN the motorist who sticks to the main highways sometimes encounters a mudhole on a detour, so that the idea shown in Figure 1 for extricating a mired car is one which any auto owner may find useful. As indicated in the diagram, brackets are built with clamps to hold special boards beneath the running boards. These special boards should be of good hardwood and should be covered on both sides with wire lath. If only one wheel becomes stuck in the mudhole loosen the clamps holding the board on the side that is stuck and shove the board under the wheel for traction. You will find that the wheel will ride out of the

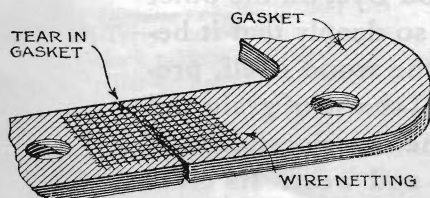


Special hardwood boards, carried under the running boards for emergency, are useful in freeing a mired car.

Fig. 1. This diagram shows how the emergency board is carried. Wire lath on both sides gives traction.

Ball an Aid to Steering

THE only way of assuring ease in steering with modern balloon tires is to have the gear ratio between the steering wheel and the front wheels extremely low. This means that you must turn the steering wheel a considerable distance in maneuvering the car. In ordinary driving this extreme steering motion causes no inconvenience, but if you have to maneuver the car back and forth several times to get into and out of your garage you will find that an aluminum ball, fitted as shown in Figure 3, will prove a big help. You can grasp the ball and spin the steering wheel the necessary amount without releasing your hold.



WHEN GASKET IS IN USE THE WIRE NETTING IS PRESSED INTO THE SOFTER MATERIAL AND HOLDS EDGES OF TEAR TIGHTLY TOGETHER

Fig. 2. How to mend torn fabric gasket temporarily by placing wire netting over the tear.

hole. If both wheels are stuck use the boards on both sides. The wire lath is necessary on the top of the board to give the tires traction, and is needed on the bottom to keep the board from sliding through the mud.

Novel Gasket Repair

AN EMERGENCY repair for a torn fabric gasket, in the event that a new one cannot be obtained, can be made by placing a piece of wire netting over the tear, as shown in Figure 2. With care a gasket replaced in this manner will hold for some time with little sign of leakage.

The wire netting serves to prevent the pressure from blowing the ends of the gasket out and causing a bad leak. Of course, this method will not work with a copper asbestos gasket that is in need of repair, but it will do the job with any of the fabric gaskets such, for instance, as the one used on the oil pan.

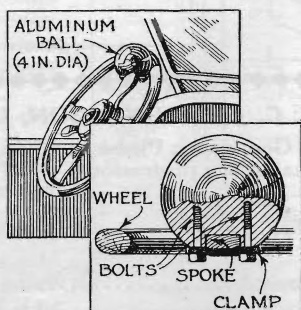


Fig. 3. Aluminum ball attached to the steering wheel aids in spinning wheel to turn the car.

MAX CHARLES PRICE, of Punta Gorda, Fla., wins this month's \$10 prize for his suggestion for extricating a mired car, shown in Fig. 1. Each month **POPULAR SCIENCE MONTHLY** awards \$10, in addition to regular space rates, for the best idea sent in for motorists. Other contributions used are paid for at the usual rates.

A Simple Homemade Jack

THE design for a homemade jack you can build easily from a few pieces of two-by-fours is shown in Figure 4. It is excellent if you have occasion to jack up your car quite frequently. A pair of these jacks will permit you to jack up both rear wheels or both front wheels at the same time for brake adjustment, and if you properly proportion the jacks to your car you will find that they can be worked very easily.

Of course a jack of this type is not suitable for general service because the throw is short. It is useful only where you wish to push it under the axle when the tire is inflated and lift the wheel a small distance from the ground. The longer the distance from the framework to

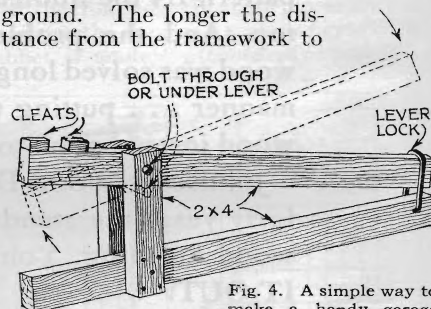


Fig. 4. A simple way to make a handy garage jack from two-by-fours.

the lever lock the easier will it be to jack up the car, and of course the shorter will be the distance that the car will be lifted. The uprights can be nailed or bolted to the bottom piece. If the latter, use a half-inch diameter bolt as a pin for the lever.

Penny Makes a Shim

WHEN you find that the ball cap on the steering apparatus fails to hold the ball on the end of the tie-rod tightly enough to prevent play, the trouble can be eliminated by taking off the cap, placing a penny under the ball, and clamping the cap in place again, as in Figure 5. The pressure will force the penny into a cup shape so that it will act as a liner for the ball cap. Use a piece of sheet copper or brass if less thickness is desired.

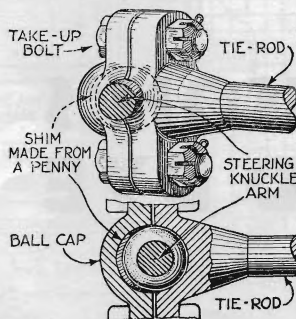


Fig. 5. A penny inserted under ball cap of steering apparatus serves as shim to stop play.